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**VETERINARY SCIENCE,
IMPORTANT**

TO THE

Physician, the Student, and the Gentleman of Philadelphia:

GIVING AN ACCOUNT OF THE

ROYAL VETERINARY COLLEGE OF LONDON,

AND

A SIMILAR ESTABLISHMENT IN THIS CITY;

OF

A New Veterinary Forge and Horse Infirmary,

FOR INSTRUCTING

CITY AND COUNTRY SMITHS

In that Important Branch of Domestic Science called

THE SHOEING ART;

A COMPARISON OF THE TWO SYSTEMS

BETWEEN

Man and Horse.

ALSO,

COMPARATIVE SHOEING EXPLAINED,

DESCRIPTIVE OF

A PLAN FOR DISSEMINATING THIS NECESSARY AND USEFUL

BRANCH OF SCIENCE THROUGHOUT THE

UNITED STATES.

By **J. CARVER**, *Veterinary Surgeon.*

T. S. Manning, Printer.

1817.



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INTRODUCTION.

IT may not be improper, while treating on the management of the feet, and the shoeing art generally, concerning which public curiosity has been much raised, that a few necessary and useful hints should be given respecting smiths. At the same time I cannot help indulging a hope that the argument I shall advance on this subject, may operate so as to produce stronger conviction in the public mind of the necessity of viewing this branch of domestic science in somewhat a different point of view, than has hitherto been customary; and that although much may be effected to prevent *contraction in young horses*, there are many, say seven out of every ten, which have already been used in the city, and which the custom of shoeing, with whatever skill and care it may be executed, or upon whatever principle it may be practised, is sure, sooner or later, to bring along with it some evil. I therefore do not conceive it utterly inapplicable to the present subject, if I say a few words in favour of those smiths, who exercise the trade of shoeing. *Few men, I believe has more to do with this class of mechanics than my worthy preceptor Mr. Coleman, and as no one vindicates their cause more justly or more readily than he does, I do it more cheerfully myself, on account of having unequivocally laid to their charge, one offence more than usually appears against them in their criminal calendar, already sufficiently heavy.*

But justice with him obliges me to say, that I know not any mechanics, that are subject to more indiscriminate censure and abuse, and who are therefore on that account, more to be pitied, than those who follow the occupation of shoeing. For a slight irregularity or blunder which in a lock smith, or jobbing smith, would be considered a mere venal fault, is in the case of the shoeing smith, converted into a crime of the deepest dye. On some account, indeed, it is natural it

should be so, for a sober half hour will often remedy the mischief by either of the former artificers; whereas days and weeks, nay months, may be required to counteract the evil consequences of an unskilful, or careless stroke of the hammer of the latter. Or it may happen, that the evil produced will admit of no remedy, and that the horse shall either die of a lock jaw, or become incurably lame.

Now, though I am far from meaning to palliate the fault of negligence, and far less the crime of drunkenness, yet, it ought to be recollected, that the shoeing smith has an *intricate and complicated part of a valuable machine*, (the *internal mechanism* of which, he is but little acquainted with), to keep in order; and that accidents are inseparable from the practice of his, as well as every other mechanical art. Instead thereof of vilifying and abusing a sober industrious smith, when such a misfortune occurs, as laming a horse in shoeing, let it be the endeavour of the proprietor, to convince that man, that what has happened, has occurred from wounding the *sensible Lamina*, and not *pricking the quick* as they call it. For this, by alarming him more seriously on the score of the probable consequence of future negligence, will have the effect of increasing his caution; and I am perfectly satisfied, that if it were once generally understood by practical smiths, that the stale excuse of binding or pinching the foot, would no longer avail them, this conviction alone, would produce greater circumspection on their part; and fewer horses would be lamed, from a hasty or careless mode of driving the nails; but so long as there exists such a strong feeling of hostility in the public mind against these people as a body, it must not only be productive of great injustice towards, and much indiscriminate abuse of, individuals, but must, inevitably perpetuate the evils so commonly laid to their charge; and thus utterly preclude all hopes of amendment, in their morals and conduct.

For, how often have I witnessed a stern austere employer, accost a humble, sober, industrious smith, just about to enter upon his labour in such a way, as if he conceived the latter was intent upon wilfully injuring, or laming a horse. Now,

is this the way, let me ask, to encourage the industrious mechanic, or to raise him from that degraded condition, which the arbitrariness of custom, and the effect of vulgar prejudice, have reduced him to? or rather, would not a more humane and enlightened policy suggest a mode of treatment diametrically opposite to this?

Let shoeing smiths that are sober and good workmen be duly encouraged, and like other mechanics let them be enabled, by the exercise of their trade, to earn as much as jobbing smiths, and the other lower kind of artists are enabled to do; and we soon shall see a different race of men step forward, to wipe away the *odium*, which their craft has been indiscriminately exposed to for ages. For may we not see daily instances of people giving preference to a jobbing smith, or a lock smith, in fact, to the vilest and most worthless mechanic, especially if he has the character of being clever, for the employment of one half hour such a sum as they would pay grudgingly to a shoeing smith, for five or six hours hard labour. In this respect, indeed there is an absurdity in the public mind, not easily to be accounted for. Few are so ignorant, as not to be fully sensible and ready to admit, that the shoeing smith has a very valuable piece of mechanism entrusted to his care, which he is expected to keep in order, whilst he is refused at the same time, the greatest of all human incentives to industry, a *proper reward for his labour*.

I throw out these hints, the more freely and readily, because I have no interest in the advice contained in them, knowing that my friends and the public in general must see the motive by which I am still actuated in thus giving away in a manner the secrets, as well as the profits of my profession. If, however, *I can* blend a *public good* with my *own interest*, *I still* reserve a sufficiency for my own comforts and wants. I certainly deserve well of my country, and of those for whom my *long labours* have been so faithfully exerted, to make them see their own interests in adopting a more humane and political, as well as an economical treatment towards those honest and faithful slaves to their services, (the horse,) whose aid and efforts are exerted for our wants; and who is both our

slave and our support; who give profit to the poor and pleasure to the rich; in health forwards our concerns, and in sickness lends a willing assistance for our recovery. In a word, *nature* has endowed *him* with that perception, which yields him the knowledge of every service *we can and ought in gratitude to render him!* If, therefore, such be the qualities of so noble a creature, surely he who has devoted his life and talents to the service and study of his infirmities, has surely some claim to the *patronage* and *protection* of his country.

However, like many other evils in society, it is a fact, much easier felt and perceived than remedied; nevertheless I am not without hopes, that what I have here loosely suggested, *may be acted upon* by the *humane* and *enlightened*, in such a way as to be *productive* of some *partial good*, if *not to myself*, at least to the community.

At the same time it is equally clear to me, that, in order to lessen these enormous evils, of *stable mismanagement*, *shoeing*, &c. we have not by any means so much to *learn*, as to *unlearn*.

For, the lessons of instinct are plain and simple. To enable us to understand these no learning is necessary to be obtained; in order to decypher them no oil need be expended; they are written in broad and legible characters, in the great book of nature, by the finger of the Deity.

But the grand difficulty in the way of improvement, is that thick mist of prejudice, which obscures the mental optics, and prevents most people from discerning, not only what is merciful and just, but even that which is economical and politic.

If, however, we could but once be prevailed upon to shake off the trammels of custom, and to forsake the beaten track of fashion, and to tread in the path of nature and simplicity, not only would the great cause of humanity be effectually served by the change, but ere any great length of time could elapse, men would begin to discover, that their own interests are now intimately connected with mercy, in the treatment of these animals, than at the first blush would seem to be the case. But as long as people of higher classes shall continue to

advocate indirectly the cause of folly and cruelty, by *sticking* for the present absurd system of treating and shoeing horses, the prospect of amendment seems indeed distant, and any rational hope or expectation of seeing the thing accomplished, is utterly hopeless.

Thus how often may one person of the above description be heard to say, I cannot bear to ride a horse with a rough coat, and therefore I will not give up my plan of clothing, nor that of maintaining a *comfortable* warmth in my stables; therefore be sure John to shut too the left windows—and when it snows, or blows hard, stop the crevices and bottoms of the stable doors with dung, and the fumes arising from that litter and urine will be sure to keep the horses warm.

A second—I detest the look of a large belly, and accordingly I will stint my horse (even in summer) to less than one half the quantity of water he would naturally be inclined to take.

A third—I think my horse don't carry a good tail; besides, it is too long to look handsome; I will therefore get it nick'd, dock'd, and bobb'd.

A fourth—I think my horse's hoofs look much better when glossy than dull, and for this reason I will order the smith to rasp them, and my groom to oil them daily.

A fifth—My horse seems to wink his eyes very much. I am afraid he is going to get the lock-jaw; people tell me he has got the hooks—I will therefore send him to the blacksmith, who knows how to cut them out.

A sixth—I think my horse has not got a good coat; it looks rough; besides, it stands on end, and he looks poor. I will therefore order him to be bled in the mouth, three or four quarts, and when he has suck'd the greatest part of this down, he will thrive and look well. People tell me that blood is a good physic, and will make the horse thrive.

A seventh—My horse's ears are rough, long and shaggy; besides, they stand too wide; therefore I will not only order them to be trimm'd out, but the greater part of them to be cut off!!!

Here is both wisdom and science combined.

Whilst, I say, in order to justify the absurdities of fashion, we hear people of a superior class have recourse to such arguments, I will not use the term reason, for that would look like a desire to dignify nonsense. What rational hope can be indulged respecting a change of system, in the lower orders, who, it is well known, take the tone from their superiors?

In short, until the nominally great, shall prove themselves to be really so, by rising above such prejudices, and instead of falling in with, and palliating such monstrous infringements of the rules of common sense, and such gross violations of the laws of humanity, as have been glanced at, shall determine to make good sense and benevolence fashionable, the great mass of absurdity of which our stable system consists, will never be materially lessened.

For, until this desirable change be effected, it can require no spirit of prophecy to be able to predict, that divines may preach, and moralists inveigh, that philosophers may discover, and legislators enact, but all in vain; for neither the sermons of a Blair, nor the maxims of a Paley, nor the lectures of a Davy or a Coleman, nor solemn acts of parliament or congress will avail, in remedying these evils.

If, however, such a happy era should ever arrive, the business might be said to be accomplished, and humanity will have cause to rejoice.

As respects myself, let my sins be what they may in this world, I shall die in the happy consolation, that when arraigned before the supreme court of the other world, at least no *four-legged gentleman* will ever appear against me.

J. CARVER, W. S.

*To the Honourable Judge Peters, Dr. Mease,
General Cadwallader, Roberts Vaux, Reuben
Hains, Jeremiah Warder, Wm. Sansom, John
Tomlinson, and Dr. Shaw.*

GENTLEMEN,

DEEMING you so justly entitled to the first tender of an Essay of this sort, from the station many of you hold in public life, and the estimation which all your private characters bear, that whatever presumption there may appear to be, in making it without permission, I flatter myself that I cannot easily be censured for the apparent impropriety of this address.

I cannot forbear offering some remarks respecting the Veterinary Profession, independent of the subject of the new Veterinary Forges, I am now establishing in this city, with a view of laying the foundation stone, for ameliorating the Diseases of Quadrupeds in general, and in order to give encouragement to those who may still feel a want of confidence in not knowing its having assumed the form of a science, and to the public generally, who have hitherto withheld their support, as if it were a derogatory and hopeless profession. There is no art, it may be maintained, so perplexed and difficult, that by human industry and research, steadily and properly exerted, cannot be rendered more clear and practicable; to accomplish this, however, time must be allowed. Having now for some months past commenced practice, and having performed several successful cures in an *epidemic disease*, which made its appearance in this city during last winter; the result of those inquiries being now before you, the progress no doubt will be more rapid, and its service to the horse and to mankind will assuredly be felt.

Some disappointment has without doubt arisen, from unfounded expectations of relief in desperate and hopeless cases, where human art could not avail; and some, not finding their interest served in this respect, have become rancorous enemies to the establishment of the New Forges as well as the profession. “The *Fruit* has been sought before the *Blossom*

was unfolded." Still there can be no doubt, that if human medicine and surgery have been aided by public establishments, the veterinary art must admit of improvement by the same means; and that cloud of *imbecility* that has so long *obscured and stigmatised* the profession in this country now promises gradually to be dispelled, and no doubt that in a few years, there will not be a city, a town, or a country village in the United States, but will have to boast a practitioner, whose abilities may do honour to a great national institution; and if any exertions on my part, as a fellow citizen should have been devoted to obtain this useful and desirable end, I feel already the pleasing consolation that I shall die happy, in having done my duty.

I cannot however conclude without the satisfaction of recording the many marks of friendship and assistance shown to me by Jeremiah Warder, Reuben Haines, the late Dr. Rush, General Cadwallader, Judge Peters and others, on the entrance of my professional studies at my departure for the Veterinary College. The services of these friends, with pleasure I acknowledge, have been most gratifying to me.

I cannot at the same time, fail to mention the friendly assistance of Messrs. G. Morrison, Wurts, and Ely of Boston, and others of this city, whose friendly aid while at college, and at a period, when it was most wanted and felt. And not less, also, do I feel indebted to the friendship of Doctors Chapman and Hewson, for their professional and friendly support and cheerful compliance in attending the examination of the death of Mr. Chancellor's horses. Not forgetting my worthy and particular friend Mr. C. Watson, since my return to the city.

I have long foreseen, gentlemen, the innumerable difficulties which still accumulate before me; I feel myself however sufficiently bold to encounter them, and although the task which my present situation imposes on me is great, no exertions on my part shall be wanting. Still, to exert every ability to fulfil it, and if the public which now honour me with its confidence, shall continue to encourage this well-meant endeavour to alleviate the sufferings of the *brute creation*, I

shall also make every exertion to correspond with their candour, by rendering myself useful in my station.

Some of you, gentlemen, are proprietors of a very considerable stock of cattle; and the many different maladies and disorders, to which the whole species are particularly exposed and subject, and which consequently, in gratitude require our friendly aid and assistance; and as this branch of domestic science called the Veterinary Art, which I have now the honour to profess among you, has stood so preeminently useful in your opinions, I flatter myself that the following sheets will not be an unacceptable token of respect. All I mean by this attempt, is to endeavour to be useful:

I only desire Mr. Pope's rules may be observed,

"In every work regard the writer's end,
Not free from fault, nor yet too vain to mend."

And should this imperfect performance, for want of a better, prove commendable to society, by these few hints which I have drawn together, I shall with pleasing satisfaction reflect, that I have endeavoured to contribute my mite towards the benefit of mankind, as well as the brute creation.

I have the honour to be,

Gentlemen, your respectful

And obedient servant,

J. CARVER.

Philada., May, 1817.

DR. CARVER'S
Repository, Veterinary Forge,
AND
HORSE INFIRMARY,

FOR THE
Improvement of the Shoeing Art,

ON PROFESSOR COLEMAN'S SYSTEM.

As now adopted at the different Veterinary Colleges of England, Ireland, Scotland, France, Germany, Spain, Portugal, Russia, and British India.

DR. CARVER,
Veterinary Surgeon and Professor of Animal Medicine,

From the Royal Veterinary College, London,

RESPECTFULLY informs his friends and the subscribers to this establishment, that he has opened a Repository, new Veterinary Forge, and Horse Infirmary, at John W. Greggor's, in Zane, between Seventh and Eighth street, formerly the old Spread Eagle, occupied by Mr. J. Tomlinson, where personal attendance will be given to see the same properly conducted on scientific principles.

Dr. Carver having long foreseen the want of such an establishment, with a view of obviating the many difficulties to which gentlemen are often subject, of keeping their horses sound in their feet, has, in conjunction with this branch of the veterinary art, established a ten stall range of new *Ventilated Stables*, on the *College plan*, for saddle horses, where gentle-

men for the annual subscription of Five Dollars per week, will have their horses shod on the above system; veterinary medical treatment, keep, exercise, and many other advantages of advice in a professional way for that sum, and where gentlemen may at all times apply with confidence, and depend on dealing with a man of honour and integrity.

The grand object of establishing these forges are not only with a view of curing and preventing, canker, corns, thrushes, and contraction, four of the most formidable diseases to which the foot of the horse is subject, and proves the entire destruction of many thousand horses in this city; but with the view of introducing and disseminating the principles and practice of the shoeing art, together with the intention of opening a school of instruction, to which city and country smiths, are invited to attend, and receive private lectures on the anatomy, economy, and functions of the foot of the living horse, by which means this useful and domestic science may gradually become dispersed throughout the union. Medical students are also invited to render themselves useful in their neighbourhoods where they may reside, by receiving instruction in the anatomy and physiology of the horse, by learning how to perform operations and administering medicine, where no regular, or scientific aid can be procured. Sensible of the advantages which may be made to result by obtaining a knowledge of comparative anatomy in this way, the young student may, without *disparagement* to his profession, be rendering a useful peice of service to himself and his country; we may then hope to see that the time is at length arrived, when these things will be in a fair way of reformation altogether, and that cloud of *imbecility* which has so long obscured and stigmatized the practice of this profession, will gradually be dispelled, and it must be the anxious hope of every liberal minded and good man, that in a few years there may not be a city, town, or country village in the United States, but will have to boast a practitioner, whose abilities may do honour to a great national institution. Divers other things might also be noticed to illustrate the *methodus medendi*."

Dr. Carver will receive patients into his infirmary at the usual charge of four dollars per week, with a moderate but economical charge for medical treatment; but in extraordinary bad cases where surgical operations may be deemed necessary a further charge will of course not be thought extravagant.

CITIES,
COUNTRY TOWNS AND VILLAGES,
AND
PROPRIETORS
OF

Mail and Stage Coach Establishments,

Will find it an object of great commercial, as well as domestic importance to their own interests in obtaining smiths, and inviting them to receive instruction and to establish themselves on their different lines. In a political point of view, also this establishment may become of great importance which must be sufficiently manifest; so fully of late, was the utility of it estimated by the government of England, Ireland, and Scotland, in their *military* and *mail* department, that an annual grant of 15,000*l.* has been voted for the support of the veterinary college, and for the education of pupils for the improvement of the shoeing art.

Proprietors of such establishments will therefore find it their interest to consult Dr. Carver, or the following gentlemen.

Happily for the profession itself, and much more happily for the community at large, that similar advantages are beginning to make some progress by the aforesaid establishment, and it is to be hoped that the time is not far distant, when it will be further honoured by a legislative contribution, under which predictive ray of reformation, part of the present ge-

neration, may probably not only derive future advantage, but live to see the former system rescued from ignorance and barbarity, by which it has long been disgraced in this part of the world. The following gentlemen, therefore seeing the ignorance and incompetency of farriers and others, who have hitherto practised on the diseases of horses in this city, (and to remedy this, and meet the *evil*, in the most effectual manner) have cheerfully stepped forward, to sanction and support it.

The Medical Patrons are

DR. CHAPMAN, Professor of Anatomy, M. M.

DR. HEWSON, Professor of Comparative Anatomy.

The Patrons friendly to Dr. Carver's New Establishment, are

Reuben Haines,

Roberts Vaux,

John Tomlinson,

M. Wurts,

Mr. Morrison,

Condy Raguet,

Wilson Hunt,

Alexander Henry,

Jeremiah Warder,

William Sansom,

Dr. Mease,

W. Wurts,

Charles Watson,

Mr. Schlatter,

Jno. Vaughan

To whom proprietors of the above mentioned establishments, city or country smiths may apply for an introduction to Dr. Carver, and who on receiving the same, shall be supplied with models of all the patent college Shoes, Hammers, Countersink Nails, Punches, Fullers, Instruments, and Drawing Knives, &c. The Butteris must be abolished for the use of the Drawing Knife, and smiths being instructed in the use of that instrument, by Dr. Carver, will be entitled to shoe on the above principle, for no less than \$1 50 a set. Every gentleman travelling to different parts of the United States, and desirous of giving encouragement to the establishment for disseminating this useful and necessary branch of domestic science, will be entitled to a set of the model patent shoes, and on bringing his horse or horses, to the forge for examination to Dr. Carver, he will be instructed in their use and application.

Country smiths, respectable young men desirous of emulating in this branch of the veterinary art, as well as to learn the surgical, operative parts of the profession will do well to apply before the ensuing winter. And every person being so instructed, and found qualified, will receive a proper certificate signed by the medical patrons, gentlemen and professor of the aforesaid establishment, as being better qualified to practice with advantage to themselves and to the public.

Note.—Dr. Carver being a member of the London Veterinary Medical Society, and having been instructed in the art of compounding veterinary medicine at the college *pharmacopœia*, has also established a small laboratory at his own house, where gentlemen, travelling to the different parts of the United States, may be supplied with what medicines they may want. City and country druggists desirous of retailing an arrangement of the above ready prepared medicines, may be supplied also. Each article containing a regular practical treatise on the complaint intended to be removed.

SUBJECTS

WHICH WILL BE TAUGHT AND DEMONSTRATED

TO EVERY SMITH,

ON RECEIVING INSTRUCTION,

AT THE NEW VETERINARY FORGE.

1. AN introductory Lecture giving a general view of the nature of the Shoeing Art.
2. The views commonly entertained of the Shoeing Art, and causes of its defects by various characters, *supposed* to have a knowledge of these things.
3. Reasonings founded on the natural foot, but are irrelevant on the foot being shod.
4. Various principles of shoeing, as they are called, examined. Good and bad shoeing pointed out.
5. One principle only—to follow nature as near as we can, that defined and how to be obtained.

6. Fitting shoes, and driving nails, discretionary circumstances only, pointed out.

7. The difference of the foot after shoeing observed, with a series of nine years experiments for accurately ascertaining the effects of the shoe after being shod, by B. Clark, F. L. S. and V. S.

8. A variety of different experiments on the foot of the living horse, explained, during my residence at the college.

9. A description of the foot and hoof of the horse, in which their true nature is endeavoured to be established, not merely as a defence for the foot, but as a non-resisting machinery for the exertions of the animal and repose of the weight, pointed out and explained.

10. Of the heels, apparent offices of the heels as elastic beds for the weight of the animal, explained and pointed out.

11. The extraordinary state of the foal's foot, which does not obtain its full developement until the fifth year, explained and pointed out.

12. How the weight is received and distributed over the basis of the foot, exhibited, explained and pointed out.

13. Wall of the foot described; its curious termination in the centre of the foot, explained and pointed out by dissection. The bars as elastic processes also defined.

14. Of the frog, how a space in the foot is provided for it by nature, as the elastic key-stone of the foot, demonstrated by dissection. Also the cleft of the frog and the frog-stay described.

15. Cushion of the frog and its uses described and demonstrated by dissection.

16. An extraordinary hitherto undescribed part the conoary frog band, pointed out by dissection.

17. The frog-stay described by dissection; the rupture of that organ described and pointed out as the real cause of running thrush, by B. Clark, V. S.

18. The frog shown to possess the power of maintaining its own figure; and the curious doctrine of shoeing smiths in this respect, pointed out.

19. Their reasons for cutting the frog explained, and the remarkable interruption to the growth of it from that cause, pointed out.

20. How ascertained; its causes suggested, and the cutting of it unnecessary, nearly in all cases. The frequent cause of ragged frogs pointed out for the above cause. The natural full grown frog, never ragged if never cut, pointed out.

21. The singular effect of shoeing on the frog described, with its natural exfoliations considered and explained.

22. The different degrees of pressure the frog ought to receive when in health, and when in a state of disease, pointed out.

23. The sole, its singular mechanism exhibited by dissection.

24. Thickens by shoeing, and the wall also retarded and disturbed in its growth by shoeing, explained.

25. The horny and sensible lamina described by dissection. 500 of the former surrounding the anterior surface of the wall, with 500 of the latter plates of horn surrounding the posterior surface of the coffin bone, and coming in contact with each other, is shown to support the whole weight of the animal, proved by experiments at the Veterinary College.

26. The hearings of the natural hoof on the ground—its natural exfoliations, &c. pointed out—its natural form at five years old, as broad from heel to heel as from heel to toe, also explained—never of an oblong form in a state of nature if never shod.

27. On standing in the stable—how it proves the entire destruction of the foot for want of proper stable treatment and management.

28. On shoeing—on neat shoeing—on levelling the toe—on expanding of feet—how to be obtained; together with a closer examination of the nature of these things pointed out and explained—how and why the shoeing art has for so many ages been involved in a cloud of darkness. With conclusions how this branch of the veterinary art may be drawn from contempt to respectability.

Note. The great evils produced by cutting, its causes and its remedies, together with a number of experiments on different horses, tried at the Veterinary College, explained and pointed out.

Dr. Carver deeming it of great importance to rectify and determine the weight of the shoe, recommends the following to the notice of the public.

It is a matter of astonishment to see some horses with shoes weighing each 3, 4, and 5 lbs. making together a burden of 12, 16 and 20 lbs. of iron attached to their four feet. It must be obvious to common sense, that such an additional weight fixed to the extremities of the leg, must be productive of some inconvenience or other, by compelling the muscles and ligaments to greater exertion than necessary, beside other evil consequences, as the weight forcing out the nails, and thereby spoiling the texture of the crust, &c. Why then, we may ask, do not the shoeing smiths, who are daily impressed of these evils, and who are themselves the very authors of them, apply themselves to the correction of their own errors? The answer, I fear, is obvious, because *he who is uneducated, and destitute of sound principles* in his art, cannot turn to real profit the experience he has acquired, nor abandon the force of prejudice and custom in which he has so long journeyed; but satisfies himself to imitate and repeat only whatever he has seen or heard by others.

The weight of the shoes proposed by Dr. C. are as follow :

1. For wagon, cart or dray horses, from	2 lbs. to 2 lbs. 12 ozs.
2. For small horses of this kind, from	1 lb. to 2 lbs.
3. For largest size coach horses, from	1 lb. to 1 lb. 12 ozs.
4. The small size do. do. from	14 ozs. to 1 lb. 4 ozs.
5. For large saddle horses, from	1 lb. to 1 lb. 4 ozs.
6. For small size do. from	12 ozs. to 1 lb.
7. For race horses, from	3 to 5 ozs.

Dr. Carver's reasons for reducing the weight of shoes as above stated are as follow :

If a horse can be made to travel as safe, and as long with a light shoe of only a few ounces, why should pounds be added? By reducing the superfluous breadth of shoes, their thickness may be increased without making any addition to their weight.

I am, however, of the following opinion: that from the race horse to the cart horse, the same system of shoeing should be

observed. The *size, thickness, and weight* of them *only*, should differ. The shoe of a race horse must, of course, be lighter than that of a saddle horse; a saddle horse lighter than that of a coach or bat horse, and these last, more so than that of a cart, wagon or artillery horse. Shoes have until lately in almost every country been made too heavy; but if the iron be good, and *well hammer-hardened*, until cold—a pound of iron worked in this way may be converted into half a pound of steel, and still answer all the purposes intended.

REMARKS AND OBSERVATIONS

ON

THE TRUE PRINCIPLES AND PRACTICE

OF THE

SHOEING ART.

Many of my friends, I perceive, hold out hopes that by the establishment of these forges a more politic system in shoeing of horses is at last beginning to prevail, and though a regular treatise cannot, at present, be written to explain every thing necessary on the subject, it is sufficient to say that Mr. Coleman's System will be laid down and taught in preference to any other; and it would be improper in me to close this subject, without informing my readers, that the use of the thin heel'd shoe lately introduced by Mr. James will for the present be laid aside, except *in very particular cases that may require it*, and that a shoe of more equal thickness at toe and heel, will be more generally adopted, except in cases of very low and weak heels, it may be made a little thicker at the heel than at the toe. At the same time it may be necessary to explain here, that although the thin heel shoe, which Mr. James introduced some time ago, did not produce all the advantages which were expected of it, but, on the

contrary, that it was found decidedly detrimental to several horses; yet, on the other hand, I am quite satisfied that the evils which it produced have been much exaggerated, though certainly it did procrastinate the evils it was intended to remove. The amount of the argument I apprehend to be this, that a principle, good in itself, was carried to an extreme, and thus the frog, under disease, having by this means more duty assigned to it than nature intended it to perform, some evils followed as an inevitable consequence. And when this shoe was first introduced by professor Coleman out of the college, it failed from the same want of caution as it did with Mr. James; but those who are acquainted with the talents and discrimination of the directors of the Veterinary College, know better than to believe them so bigoted to the thin heel'd system, as to apply it in cases as Mr. James did, directly repugnant to reason and nature. No one (seeing its indiscriminate application had brought it into disrepute) can blame professor Coleman, who recommended IT ONLY where the foot has been put in a state for its reception; that is, with high heel'd hoofs. And on this, as well as in his lectures, and advice to his pupils, he always lays the greatest stress, and certainly with reason; for if the foot is *not properly prepared*, any other shoe would fail, from the same cause.

In this lies the difficulty, which is not to be surmounted, except by indefatigable attention to the practice. No one, I repeat, would suppose professor Coleman to have neglected in his own practice what he so forcibly recommends to others. The only shade of error that seems attributable to him, was want of reflection. He published his system long before *pupils enough* had been taught, and benefited by *his personal* instruction, so much as to know when the depth of the heels would admit of its application, and when not. Now, had Mr. James been regularly bred at the college, (had that been the case), and had surgeons growing from under his hand, been spread about in the country, and the system always been APPLIED TO PROPER FEET, I am fully persuaded it would not have failed, neither would Mr. James have committed the same error here.

But *to bring it to bear on all kind of fact, or vice versa, to make all feet fit to receive it, is another matter.* Now, had Mr. James lowered the heels of those horses' feet gradually, by five or six shoenings, instead of doing it (as I understand he did) all at once, he would not only have effected his object admirably, but have *relieved my shoulders of a very heavy burden of prejudice, and often very abusive language, from grooms and coachmen, which I am in a great measure obliged to bear until more time is allowed to convince them of the error.*

Had Mr. James been gifted with prophecy, his enemies would have had abundant reason to open upon him; but his inadvertency, as well as want of practical knowledge, is to be blamed. Had I been Mr. James's counsellor, I would have advised a very long period of trial before I had endeavoured to render the thin heel'd system universal. That it is the only system possessed of powers to obtain universality, I am confident, not only because no other is natural, but because it is a fact too well known, that this thin heel system, is the only one which has been in use among the Asiatics for ages past, and which I have myself been eyewitness to, during many years residence in that country.

Nevertheless I am quite as certain, that the thin heel shoe requires so much attention and professional knowledge, that it will not be universally adopted for ages to come in this country. And that Mr. Coleman's *seated concave shoe, combined with his method of preparing the feet with a drawing knife*, being less liable to immediate mischief, will, in the present state of veterinary science, be more generally adopted.

To elucidate this subject still farther—where is there a gentleman in this city that *has not* two horses, whose hoofs, from various causes, are differently constructed, and require different shoes, to one or the other of the above description. To produce, therefore, a level tread, and not distress the muscles and sinews by the application of a thin heel shoe, Mr. Coleman recommends *the toe to be cut, but not the heels.* The simple difference *therefore between thick and thin heel'd shoes, properly applied*, is this, in one you have iron at the heels equal to two,

and horn equal to six—in the other you have iron equal to one only—and horn equal to seven—so that the depth of iron and horn united when the thin heel'd shoe is judiciously applied, is exactly the same, and no more exertion used by the muscles and sinews in the application of one than the other; but if the thin heel'd shoe is used before the horn is equal to seven, lameness will be likely to ensue.

There are two things necessary to be attended to in shoeing, viz. to cut the hoof, and apply the shoe. Before the hoof is protected by iron, some part requires to be removed, and others preserved. This part of the practice of the shoeing art, scientifically, as I have before stated, and which cannot be repeated too often, is of infinitely greater importance than the form of the shoe; I shall therefore be as explicit upon it as possible, taking for my guide, where I am justified by my own experience, the method used by the ancients, and which is nothing worthy more than the college method of paring out the foot; and as the reader may observe of quoting Mr. Coleman's lectures when necessary. Before the art of farriery had assumed the form of a science, by the establishment of veterinary colleges, even in England, smiths in general attended chiefly to the shoe, and not to its application, or the functions nature intended it to perform; which error has for many ages been the source of so much mischief. For as Mr. Coleman in his introductory lecture very properly states, “a watch, or any other machine intended to regulate time, will perform its functions in proportion as it is well or ill made; but a horse-shoe may be found mathematically correct and yet produce lameness.” For it is a fact that the best shoe that can be made, will produce more mischief when applied to a hoof improperly cut, than the worst shoe when well connected to a hoof prepared with judgment. And until my regular treatise on comparative shoeing will appear before the public, it will be enough now to prove the impracticability of using systematically any particular form of shoe, and the consequent fallacy of all inventions, that with the assumption and assistance of novelty, are held forth as lures to the public. Not so the paring out, and preparing the foot—for whatever

kind of shoe is used, the *concavity of the sole, in imitation of the form given to the foot by the Almighty*, must be preserved; or, where that concavity is wanting, it must be obtained as soon as possible. Paring out the foot, therefore, with the *drawing knife*, as in the manner directed by the *different veterinary colleges*, is now reducible to a system, in every country except this, and though the operation of it must be varied *discretionally*, according to the different form of the soles, it is not, as far as I know, susceptible of improvement.

I can without vanity say, that I have seen and witnessed more methods of shoeing in different parts of the world, and paid more attention to it, than perhaps any other man of my age in this, or any other country; and although I know I am fighting against very strong, though very unreasonable prejudice, yet, should the system I am now about to establish in this city be fairly tried and encouraged, and compared fairly, on experience, with others, and not immediately laid aside, I am as confident of deceiving the expectations of the public in this as I did on a former occasion with another system, by which thousands in this city have been benefited.

I AM NOW GOING TO ADDRESS MYSELF TO ALL FARRIERS, SMITHS, GROOMS, AND COACHMEN, who are able and willing to understand, without stickling to maintain so many absurd notions of their own, whose office it is to shoe, or see shod this valuable animal, which is at present the subject of our inquiries. The comfort of horses, as respect their stable management, but more particularly the management of their feet, depend greatly upon *the care and activity of grooms, and coachmen, whose value when they possess, and are worthy of the confidence of their masters is hardly to be estimated, and upon whom the task often devolves of advising the smiths in the country, while travelling*. I would draw their attention to the following particular.

Firstly, That to remove the crust and bars, with a but-teris in the fallacious hope of widening the heel thereby, is not only highly injurious, by increasing contraction, but ultimately produces permanent lameness.

Secondly, That to pare down the crust and bars, so as to bring them on a level with the horny sole, whatever may be the form of the shoe set on, exposes the sole to pressure, under which, that part being filled with innumerable blood vessels, extravasation is formed, between the sensible and insensible sole, and thereby producing corns, and other diseases.

Thirdly, When the heels are sufficiently high, as before stated, thin heel'd shoes are to be preferred; but when the heels are low, and the pastern joints long, or the action high, seated shoes with thick heels, as improved by Mr. Coleman, are to be preferred.

Fourthly, Whatever shoe is employed, it is absolutely necessary for the soles to be made *concave* with a drawing knife, particularly between the bars and crust, in order to prevent pressure on the soles.

Fifthly, That to a foot so prepared, almost any shoe may be applied, and a foot not so prepared, almost any shoe will cause lameness.

Sixthly, That the frog is the elastic key-stone of the foot, possessing the power of maintaining its own figure when constantly brought into contact with pressure, a circumstance little known to smiths, or stable people, and that it is never ragged, when it has never been cut.

Seventhly, Oil ought never to be applied to the feet of horses with the view of supplying horn. Your horses should in the day time stand without their litter, and the feet should be picked out and washed night and morning. By observing this simple plan of treatment, you will hardly ever see a sand crack, and but seldom a running thrush.

Lastly, Never cut the frog, nor never rasp the surface of the hoof above the clinches, except in obstinate cases of contraction, you should be necessitated to rasp the *quarters* to expand the heels—this last operation however requires the judgment of a Veterinary Surgeon.

By adopting these few rules here laid down, you will at least avoid the grosser errors which are every day committed; and if you have sufficient courage to study a little more the

necessity of acquiring the two principles of shoeing, by asking for advice and information from me instead of being bi-gotted to the opinions of your stable friends, Tom, Dick and Harry, who cannot possibly know any more about it than yourselves, public opinion will soon place you on a level with men who are enlightened, and therefore useful to society. I will observe upon the whole, that the less substance you take away from the natural defence of the foot, *but on particular occasions which may require it*, the less artificial defence will be necessary; therefore the nearer you follow these few simple rules, the nearer will you all approach to perfection in an art, *which has for so many ages been involved in darkness.*

ADVERTISEMENT

TO THE

Faculty, Gentlemen, Farmers, and Graziers,

OF PENNSYLVANIA.

THE branch of science which I have now the honour to profess in this department of Natural Knowledge, being altogether new in this country, and the *name* by which it is called being but little known, it becomes indispensable, therefore, to communicate, for the better information of the public, whatever may be learned on this head.

Farriery is a name which it derived from the occupation of those who practised it—who were in general *Smiths, or Workers in Iron, (Ferracius.)* *Veterinary* is a word derived from the Latin—*Veterinarius*, a term appropriated to express either that part of medicine which regards the cure of animals, or the persons who practice that cure. What the true *Etymon* of the word may be, is a question of some philological intricacy, though but of little importance. It is sufficient here to say, that the word *Veterinarius*, as used by Columella and Vegetius, signifies a practitioner in one particular part of medicine, namely that which respects the cure of diseased cattle; and that art, *Veterinaria*, signifies the art of healing applied to the healing of cattle.

The word *hippiatric*, is a compound term, formed of the Greek word *Hippos*, a horse; and *cutrace*, medicine, which treats of the cure of diseased horses, in particular, and constitutes a principal branch of that division of medicine which treats of the diseases incident to cattle in general and to all other domestic animals.

We have undoubted evidence that the art was cultivated in *very early times*. In the infancy of medicine, when the art of healing was confined to the rude elements of Surgery, it was indiscriminately applied to the relief of all accidental distresses, to which the animal frame was liable, whether they occurred in man, or in those animals which constituted his wealth, or were

the associates of his labours. In these times, many things occurred to attach the minds of men to the well being of their cattle.

They were almost solely used for tillage, and the dairy; and the life and health of the herds was an especial concern. Cattle was the great medium of exchange, before the invention of coin; and the riches of countries and individuals, were estimated by the quantity of cattle and the laws of religion, which religiously forbade the sacrifice of any animal, but such as were in the most perfect state of health.

Chiron the Thessalian, a person whom antiquity held in extreme veneration, and who, from his transcendent skill in horsemanship, and many other useful arts, was called the wise Centaur, lived at the age of the Trojan war. This great man descends to us as the father of medicine, and the instructor of *Æsculapius* in that art. And he was, on the concurrent testimony of antiquity, profoundly skilled therein, as also in the cure and management of cattle.

It would be to no purpose to trace this art minutely through all its vicissitudes; it is sufficient to say, that the decline of the Roman empire, and the decay of arts and sciences, occasioned for some time the destruction of *this* as well as every other branch of knowledge. But while Veterinary Medicine was lost in the *West*, and was declining fast in Greece, it found an asylum among the *Arabians*; a nation destined as it should seem by Providence, to receive in trust the knowledge of Europe, until emerged from the abject state into which it was plunged, it was able to reassume its intellectual rank. It is worthy of remark, that the Asiatics appear to have preserved that part of the management of horses which consists in their treatment when diseased, entirely separate from the business of the farrier; the confusion of which, essentially distinct occupations, has been hitherto the bane of veterinary science among us.—During a residence of 15 years among the different nations of the East, I have the satisfaction to say I learnt many useful lessons.

The great Lord Bacon, sensible of the services he had rendered to medicine by Zootomy with a view to comparative anatomy, makes the following observation—

“The diligence of Zootomists, says he, may much contribute to illustrate the doctrine of Androtomy—and both inform physicians of the true use of the parts of the human body, and help to decide divers anatomical controversies,—farther, it would be

no new thing for naturalists not professedly physicians to treat of this subject; the naturalist may afford good hints to the practitioners of physic, by trying upon brutes a variety of untried medicaments or remedies, and by suggesting to him both the events of such trials, and also what has been already observed about the cure of diseases incident to beasts.

“The most skilful physicians might also, without disparagement to their profession, do it an useful piece of service, if they would be pleased to collect and digest all the experiments and practices of farriers, graziers, butchers, and the like; which the ancients did not despise, but honoured with the title of *Hippiatrica* and *Veterinaria*; and among which, if I had leisure, divers things might be taken notice of, which might serve to illustrate this subject.

There are a few of the sentiments of ingenious men, selected of many; but they are sufficient to prove, that from the period at which veterinary medicine first attracted the notice of the learned, it grew more and more an object of their attention.

I shall now follow the progress of this opinion no farther, but observe, that after a course of many years, the government of France undertook to give effectual assistance and protection to this most useful part of Domestic Science, and to provide for it the same advantages by which medicine had formerly advanced.

It will not be out of place to give here some account of the means which the French government employed, in order to bring about the desirable end; and which so justly entitles France to the same honours with respect to the Veterinary Art, which the world must ever concede to the school of Salerno, with respect to medicine.

Sensible of the advantages which must result from such an institution, government granted a sum of 50,000 livres to defray the expenses—providing a laboratory, dispensary, physic, guarding-stables to serve as hospitals, forges, instruments, and utensils; also rooms for study and dissection; in a word, every thing that might render the establishment complete.

The first school was opened in January 1762. It was very soon filled with native students, and in a short time their numbers were increased by foreigners—supported by the empress queen, the kings of Denmark, Sweden, Poland, Prussia and Sardinia, and the different Swiss Cantons. And within these

few years past Spain, Portugal, Russia,* and all British India, have followed the example.

Dr. Rush, whose heart was ever warm for the introduction of any new branch of science, which might tend to promote the welfare of the animal creation, conversed much with me on veterinary subjects, and laboured hard to prevail on me to establish that pursuit in this city—but not having then obtained it scientifically, I proposed to Dr. Rush and other friends already mentioned my then intended pursuits at the college,—from whence I am now returned and commenced practice.

COMPARATIVE ANATOMY.

BEING A BRIEF OUTLINE,

BY

COMPARISON OF THE TWO SYSTEMS

OF

MAN AND HORSE.

1st, When the Almighty created Man, he made a summary of the world's fabric, an abstract of divine nature: in him he ended his work: on him he stamped his seal, and sign of his power, and portrait of himself. In these are the three principles of divine essence; in which essence these three principles are united. Theologians call them by the Trinity; the Naturalist, Matter, Spirit, and Motion; the Chymist, Salt, Sulphur, and Mercury, the Anatomist, Body, Blood and Spirit; the Botanist, Substance, Fragrance and Sap. But the philosopher comprehends them all, and searches out the *Triune*, this first great cause, from the *Animal, Vegetable and Mineral Kingdoms*; and with his intellectual faculties soars into ætherial regions, and exclaims with David: "*I am fearfully and wonderfully made! Whither*

* The emperor of Russia has lately sent over twelve veterinary surgeons and twenty-four shoeing smiths.

can I go from thy Spirit!" Ps. cxxxix. 7. 14. In fine, Man is a living and walking machine, containing within itself the principle of its motion and preservation, not only for a few years, but sometimes for more than a century. Nothing, says an intelligent physiologist, is a stronger evidence of the dignity of man, and of his pre-eminence over the different species of brutes, than the erect position of his body, and the majesty imprinted upon his countenance. The same ignorant reasoners have attempted to assert, that the upright posture of man is not natural to us; but the formation of the head and foot, as well as several other parts of the human body, clearly prove, that those who thus argue are wrong. Other animals have their eyes placed on each side of the head, so that they can see the horizon: but man, were it not for his erect position, would fare far worse with respect to sight, than any of the brute creation. His eyes would be turned directly towards the ground: and he would not be able to shun a thousand dangers which other animals avoid by flight, when their sight apprizes them of their approach. If, therefore, any thing evinces, that nature destined man to walk with his head erect, it is the very formation of his head. In his upright attitude, he takes in at one view the heavens and the earth: he can look upwards, and downwards, all around him: and so far from having occasion to envy the posture of the creatures around him, he may justly consider his own as a favour conferred on him by Nature.

2d. The Horse is a generous and serviceable creature; possessing the courage of the lion, the fleetness of the deer, the strength of the ox, and the docility of the spaniel. By his aid men become more acquainted with each other: he not only bears us through foreign climes, but likewise labours in the cultivation of our soil; draws our burdens and ourselves; carries us for our amusement and our exercise; and both in sports of the field and the turf, exerts himself with an emulation that evinces how eager and ambitious he is to please and gratify the desires of his master. He is both our slave and our guardian; he gives profit to the poor, pleasure to the rich; in our health he forwards our concerns, and in our sickness lends a willing assistance for our recovery.

This fine spirited animal participates with man in the toils of a campaign, and the glory of conquest, penetrating and undaunt-

ed as his master, and views dangers only to brave them. In exercise of all kinds, his fire and his courage is irresistible, and amidst his boldest exertions, he is equally collected and tractable; not obeying his own impetuosity, all his efforts and his actions are guided solely by his rider; indeed such is the greatness of his obedience, that he appears to consult nothing but how he can please, and if possible anticipates what his master wishes. Every impression he receives, has a responsive and complete obedience; he darts forward, checks his ardour, and stops at command; and the pleasures attendant on his own exertions, he renews, or rather enters them in the pleasures and satisfaction of man; nay, he serves him with all his strength—and in his strenuous endeavours to please, he often outdoes himself, and even *dies in order the better to obey!* In a word, nature has bestowed upon him a disposition, both of love and fear, to the human race; she has endowed him also with that perception, which yields him the knowledge of every service *we can, and ought in gratitude* to render him.

Such indeed are the acute and generous feelings of this noble animal, that he is less affected with his bondage, than with the want of our protection; pleased in the constant labour of our health, pleasure and profit, he feels no distress *but what is caused by our own cruelty and ingratitude.* All he demands from us, therefore, for a life of incessant labour, is a support and tender return; the attainment of which, creates in him his chief pleasure. If such, therefore, be the qualities of this noble creature, surely he who has devoted his life to the study of his infirmities, has some claim to the patronage and protection of his country.

Having described the qualifications of this noble animal, I shall now proceed to give a brief detail of the difference of structure between him and man.

1st, In the formation of the brain, its structure is entirely different, being reversed; the cerebellum of the horse holds the situation of the cerebrum in *man*. Its proportions are also very different; the size of the brain in the *Horse*, being only in the proportion of one-fourth of that in *Man*. The structure of the lungs of the horse, are also very different; the pulmonary veins being double in number to that in *man*. This of course allows an easier transmission of blood from the lungs of the *Horse*, and consequently occasions the animal to have its circulation less hurried there, where speed is so often required. The pulse of

the Horse is also different, being generally at a range of from 35 to 46, though from 40 to 45 is the general medium; while in *man*, it is generally about 75, seldom under 60. In the *Horse*, the arteries seldom take any disease, which is generally so frequent and so fatal in *man*. With respect to the blood of the horse, it has less serum than in *man*—because the horse is less subject to dropsical complaints.

But with respect to the nervous system, its proportion between the two animals is in favour of *ourselves*; the nerves being of course more numerous, in order to answer all those finer feelings, as well as all those various sympathies so predominant in the human frame; whilst the horse, by nature limited in his situation and pursuits, possesses a lesser proportion, therefore wants that acuteness and sensibility, which is so peculiarly connected with that intelligence and understanding ordained him by the Almighty. When we come to the basis of the structure of both these animals, we find that at birth the bones of the *horse* are more complete than in *man*, and that the process of ossification has made a more rapid progress in the *womb*; the spine of the *horse*, by its greater compactness and strength, being more fitted for support and strength, than in *man*. The vertebræ, or bones of the back, are also proportionably firmer and better united.

From the *basis* of the *body*, we come next to the organs. The stomach of the horse being much less than in *man*, displays also less sensibility; the cuticular part to which the bott is principally attached being quite insensible, and does not retain so long as *man* the food that is received into it. This organ contains only three gallons of water. When it is a well known fact, from experiments tried in 1814, during my residence at the college, that a horse, from long deprivation, will drink 5 and 6 times that quantity.

The changes also, which affect the assimilation, and complete the process of *digestion*, are chiefly made by intestines, different from *man*, and for this purpose a peculiar provision is made by nature, that the alimentary matter may not be hurried too quickly through the intestines; for in the horse there is no *gall bladder*, consequently the bile has not that acrimony, or powerful stimulus, or action, on the intestines, as in *man*. Neither is there that necessity for hurrying the alimentary matter from the

body of the horse, as in man, from its having less disposition, in consequence of the food of the animal, to putrescency—*Man* being *carnivorous*, the horse *graminivorous*. Connected with the same cause, is the formation of the *liver*, which is more simple in the horse, being divided into seven small lobes—that of man only into two—the horse being an animal destined for speed; *man* not. It is also secured by ligaments: one from the diaphragm; a second, or a portion of the same, from the breast-bone, by which means it can neither fall downwards, nor sideways; and the umbilical vein, by which the *fœtus* is nourished, becomes its suspensory, or third ligament; so that it can neither push forward in galloping, or going down hill, nor press too hard on the soft parts that lie under it.—It possesses however no less than from *forty* to *fifty* hepatic veins, while there are few in man. It is also more free from disease than that of *man*, or of any other animal, and the simplicity of its structure may, perhaps, be considered as the cause of this.

The sense of vision* in the horse is particularly powerful. He sees better at night than most other animals, and sees stronger on each side than straight forward. He has no lachrydal duct nor eyebrow; *man* has both. As quadrupeds have no hands to defend those organs, or remove extraneous bodies from the eye, nature has provided for them a seventh muscle, which is denied to *man*, and by which means the eye is drawn into the socket at the approach of danger. It is a firm cartilaginous membrane, situated in the inner canthus of the eye—in health hid by the eyelid, except a very small portion, which is black at the edge; but when labouring under inflammation, it projects very much forward, from the action of the retractor muscle drawing the eye backward to avoid the superfluous rays of light. Thus in tetanus or lock jaw, when all the other muscles are in a most violent state of contraction, this membrane, which the farriers call the *haw*, is drawn over the eye, by the action of the retractor. *This membrane, which nature has provided for the wisest purposes, is often cut out by common farriers, which ignorant and barbarous practice cannot be too much reprobated.*

The carunculæ lachrymales also in the horse is black, while that in man is red. This has a kind of fold of the conjunctiva—

* A treatise on the organs of vision of the horse, with plates, showing the diseases of the eyes, their causes, symptoms and best mode of treatment, is now in the press.

though not entirely covered, as in man. Its principal use is to direct the superfluous moisture, secreted by the lachrymal duct, to the puncta lachrymalia, from whence it is carried into the former, and so passes into the nose by the *ductus ad nasum*; which in the horse is very long and membranous, but in man short and bony. The tapetum, or the inner covering of the choroïd coat, is half black and half green, the better to absorb the superfluous rays of light, and also to assist and enable them to collect those rays corresponding to their food while grazing. In man those variegated expansions are wanting.

His hearing is equally powerful, and his ears are covered by strong muscles, which direct their position to the object present. This is not observable in man. In the circulation from the heart of the horse to the head, there is also a marked difference; the supply not being exclusively dependent on the carotides, for their arteries can be tied up in the horse without danger, whereas the tying up of one of these in *man*, frequently proves fatal. This operation has been performed in several instances with success, in staggers and other diseases, to which that animal is subject.

The heart also is formed in some with two, in others three, but in all the more perfect quadrupeds, with four cavities, forming a complete double circulation; but the distribution of those vessels producing this, varies in different subjects. In man, the aorta gives off, soon after its origin, the right subclavian, left subclavian and left carotid arteries, the right carotid being furnished from the right subclavian, so that, properly speaking, there is no ascending aorta as in the human: besides there are only four pulmonary veins in man, in the horse there are double that number. In the sexual organs, the structure of the uterus or womb, is peculiar in having horns, and the testicles in the male show a secretory disposition in twelve months—now after the testes of the human subject have passed the abdominal ring, a complete union takes place between the vaginal or outer reflection of the peritonium, by which means all communication with the scrotum and abdomen is shut out: this is a wise and kind provision to man; for, from his erect position, was it not so, there would be a continual descent of some of the intestines. Man is also subject to *hernia congenita*, but animals not being subject to this, have not this opening closed; therefore in a horse, a communication between the scrotum and abdomen remains;

but from his prone situation, neither congenital nor scrotal hernia are but rarely met with. In the disposition of the horse, there are many that never lie down, but sleep in an erect posture; and contrary to what is the case with most other animals, the horse does not lie down after eating. In five years the horse attains his full growth, which in man, on the contrary, requires a period of twenty-one years, showing less active powers of the system, and a more complicated machine to complete.

But what will enable every one to form a proper judgment betwixt the constitution of the horse and that of man, is the different effects of the same medicines in both. Thus arsenic has been given to a horse in the quantity of two drachms, while one-eighth of a grain is the proper dose, which is thought safe to begin with, in the human subject. *Tartar emetic*, a medicine equally active, has been given to the horse without any violent operation, to the extent of *three ounces* daily: in man a single grain is often too large a dose. Blue vitriol also has been given in the same manner, to four drachms a day; verdigris in the same extent. Corrosive sublimate has been exhibited in an equal quantity; and with respect to different narcotics, as *hemlock*, *henbane*, *nightshade*, &c. &c. have also been given, under my own inspection, when in charge of the hospital stables at the Royal Veterinary College, to a great extent to condemned horses, without producing any sensible effect.

On this I might enlarge; but I hope sufficient has been said to show what is due to the improvements in this department of Anatomy and Medicine, and to none am I more indebted than to my worthy instructors professor Coleman and William Sewell, Esq. assistant professor, for their correct anatomical views of various parts of the animal; for their tracing the causes of many diseases as well as the difference in structure in both, to their source, on which the most erroneous ideas have been entertained; and for explaining their opinions by a proper analogy between the maladies of the animal and man; thus rendering their explanation easier and better understood.

J. CARVER.

Regular lists of all the gentlemen who have studied at the College and passed the Examining Committee are published yearly. Those lists may be seen at any time by any gentleman desirous of seeing them, by application to the author.

HISTORY OF THE

London Royal Veterinary College,

AT ST. PANCRAS.

The Royal Veterinary College, is an institution first established in the year 1792, at St. Pancras, near London. The public are indebted for this truly national foundation, to the discernment and patriotic exertions of the Agricultural Society of Oldham, in Hampshire. The first professor was Mr. St. Bell, a Frenchman, who had previously signalized himself in this country as a veterinary anatomist, by dissecting the famous horse Eclipse. The college is supported by an annual subscription. The annual contribution is two guineas, but the payment of 20 guineas at once, constitutes a subscriber for life. In some recent instances, the institution has shared the bounty of parliament; an immense saving resulted to the nation from the appointment of veterinary surgeons to the different regiments of British cavalry.

The views and objects of the college appear in the following statement printed by the authority of the governors. The grand object, they observe, is the improvement of veterinary knowledge, in order to remedy the ignorance and incompetency of Farriers, so long and universally complained of. For this end a range of stables, a forge, a theatre for dissections and lectures, with other buildings, have been erected; a gentleman of superior abilities has been appointed professor, with other requisite officers. The anatomical structure of quadrupeds, as horses, cattle, sheep, dogs, &c. the diseases to which they are subject, and the remedies proper to be applied, are to be investigated and regularly taught; by which means enlightened practitioners of liberal education, whose whole study has been devoted to the veterinary art in all its branches, may be gradually dispersed over the kingdom, on whose skill and experience confidence may securely be placed.

Pupils to the college, in addition to the lectures and instructions of the professors, and the practice of the stables, at present enjoy (from the liberality of some of the most eminent of the faculty) the advantages of free admission to their medical and anatomical lectures. These pupils, previous to leaving the

college, are strictly examined by a medical committee, from whom they receive a proper certificate; and upwards of 500 have been examined and approved, left the college, and are at this time practising in the different regiments of cavalry, and various parts of the country, with great success.

Subscribers have the privilege of sending their diseased animals to the college, without farther expense than that of daily food, and these in general form a sufficient number of patients for the practice of the professor and pupils. On fixed days the professor prescribes for the animals belonging to the subscribers, who find it inconvenient to send them from home, provided the necessary medicines be furnished and compounded at the college. Subscribers horses are there shod at the ordinary prices. His royal highness the commander in chief having been pleased to appoint a board of general officers, to take into consideration the objects of this institution, and they have reported the continental loss to be very heavy, from the total ignorance of those who hitherto had the veterinary department in the army. This report his majesty approved, and henceforward to qualify for the military service, a veterinary surgeon must be provided with a regular diploma from the college.—A number of gentlemen, subscribers to the institution, attend once a fortnight to inspect the discipline of the stables, and see that the regulations are duly complied with.

THE PATRONS OF

THE ROYAL VETERINARY COLLEGE

ARE AS FOLLOWS, VIZ.

His Royal Highness PRINCE REGENT, President.
His Grace the DUKE OF NORTHUMBERLAND, K. G.
F. R. S. F. A. S.

Vice-Presidents.

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THOMAS PELL, Esq. F. A. S.

GRANVILLE PENN, Esq. F. A. S.

NOTE.—This last mentioned gentleman is of the Penn family of Pennsylvania, and is now living in England. He was the friend and patron of Mr. Charles Vial De St. Bell, the first professor of veterinary college; a great promoter of veterinary science, and the gentleman who laid the foundation stone of that institution.

The following gentlemen originally constituted the committee of examiners, for the purpose of granting diplomas to the pupils of the college, when sufficiently qualified to engage in practice.

DR. JOHN HUNTER,

G. FORDYCE,

BAILLIE,

BABBINGTON,

MR. ABERNETHY,

MR. HOULSTON,

CLINE,

A. COOPER,

HOME.

The present Examining Committee are,

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Dr. BABBINGTON, F. R. S.

Dr. BAILLIE, F. R. S.

Sir EVERARD HOME, F. R. S.

J. ABERNETHY, Esq. F. R. S.

A. P. COOPER, Esq. F. R. S.

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Dr. PEARSON,

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A. CLINE, Esq.

EDWARD COLEMAN, Professor,

WM. SEWELL, Esq. Assistant Professor,

Treasurer and Secretary.

Among the improvements of these latter times, the extension of a regularly cultivated system of veterinary practice, and the attempts to rescue the superior class of domestic animals from the torturing hand of presumptuous ignorance, are not the least considerable, either in the view of humanity or life.

It is true, that during the various ages which have passed since the days of Columella, the number of writers treating on veterinary science, according to the best medical light which the

times afforded, has been considerable; but these works had never any very extensive circulation. Competent practitioners were wanting to put their precept in force; and diseased animals were either totally neglected, or confided to the unmeaning and capricious efforts of the illiterate vulgar.—Entirely to wipe away this opprobrium on humanity and common sense, must infinitely redound to the credit of the present times; and it is consoling to be able to announce, that attempts are daily making towards that beneficent end, by considerate and philanthropic characters in various parts of our own and neighbouring country.

Ancient prescriptions and a false pride; among the medical faculty, compose the twofold cause which has hitherto deprived our domestic animals of the benefits and comforts of regular assistance. Cattle have always been doctored in every country, either by their attendants or by men pretty nearly on a level with those in point of education, who, on the strength of having learned to perform the most simple and common operation, and from the want of able proficient, have undertaken the arduous task of prescribing medicine. We need not wonder that in former times such professors were held duly qualified, since men impartially committed their own persons to the hands of ignorant barber surgeons, and since so many absurdities of equal magnitude subsisted, which like spectres and ghosts, have vanished at the approach of modern light; but it may well be thought surprizing, that in this discerning age, when a liberal education is universally acknowledged to be absolutely necessary to the acquisition of medical science, that an illiterate farrier should be trusted in the cure of diseases. Precisely the same studies, physiological, anatomical, and medical, are requisite for the veterinarian as the human practitioner. The animal economy in its manifold relations, is generally fundamentally the same in men and beasts, and governed by the same laws; the same *materia medica* is in a great degree applicable to both; but the greatest skill is requisite, to form a judgment of the symptoms of diseases in brutes, from their inability to describe their own feelings, and the consequent uncertainty of their pathology.

Can there be a greater burlesque than the supposition of a man's ability to prescribe physic for a horse, merely because he knows how to groom and shoe him? or might we not also, with equal reason, employ our own shoemaker to take measure of our health? The plea of experience is futile, from the utter inability

(*prima facie*) of illiterate and uninformed men to investigate the principles of science, and their total want of opportunity to acquire by rote a rational system of practice. The whole stock of medical knowledge of these practitioners, usually consists in a certain number of receipts, derived from their masters or fathers, and which they continually ring the changes in all cases right or wrong; and so fiercely are they bigoted to their own peculiar nostrums, that they are totally incapable of all advice or improvement—the common and unavoidable fate of confirmed ignorance, since it is the highest point of knowledge, to know that we still need information. They sometimes cure by luck, seldom from knowledge, but often kill by regularly adapted process.—How often has the miserable patient's shoulder been pegg'd, and blown, and bored, by way of punishment, for the folly of getting himself strained in the back sinews of the leg, or coffin joint! How many pleuretic horses have been killed outright by ardent spicy drenches, which probably might have cured the colic! How many have been rendered incurably lame, from the patent shoe being affixed to the wrong foot!—Let not the reader suppose these to be mere flourishes, applied to the generality of farriers within my knowledge. I aver them, on the experience of many years, to be literal truths; and by the tenor of them, he may judge of the majority of that faculty throughout Europe. Into such hands do we commit our distempered animals, which have it not in their power to reproach us with their accumulated sufferings; mankind from prejudice, indolence, or want of feeling, neglecting those creatures which they can purchase with their money.

It has been supposed that veterinary writers have been wanting. It was many years ago discovered in France, that the best remedy for this defect, and the only adequate method for the general diffusion of veterinary knowledge, and the rearing of a sufficient number of persons properly qualified in that line, would be to erect public seminaries expressly dedicated to the purpose.

We of this country came (late indeed) into the same salutary measures; and a veterinary college, as an hospital for cattle, has been established in London, and others in various parts of the kingdom. The propriety of these steps, and the benefits derived from them, must be obvious in the extension of veterinary knowledge and the increase of practitioners.

Public institutions, provided they are not unduly favoured with exclusive privileges, or armed with coercive and restrictive powers, are ever most efficacious and contributory to the advancement of science. The scattered rays of knowledge are, by joint and public means, best collected into a common focus or centre, whence they are with more ease and expedition diffused and circulated throughout the whole body of the commonwealth. The veterinary college has also adopted a very judicious method of disseminating the true principles of shoeing, by erecting forges in different quarters of the metropolis, where all persons may at any time have their horses shod, at the common price charged to subscribers.—Prejudice, I know, on more important occasions, has often been trumpeted forth as not only harmless, but beneficial among men; which indeed would be just, were there any general utility in the continuance of ancient abuses. It is the grand business of philosophy, to provide a counterblast for these interested or ignorant trumpeters.

It has already been asked, for the advocates of our shoeing and sow-gelding doctors, how they came to suppose, that less medical knowledge would suffice to prescribe for the brute, than for the human animal, who can orally depict his own feelings, and verbally assist the physician in forming a correct judgment of his disease. They seem to act upon the strange supposition, that it is much easier for an illiterate man to penetrate at once, as it were by INTUITION, into the arcana of the sciences, than for a learned or well informed man to render himself skilful in the nature and management of horses.—Can a man be the worse farrier for having learned the necessity of making constant observation of his own, instead of acting by rote, and being guided by a few arbitrary receipts, for knowing the nature of the medicines he prescribes, the anatomy and animal functions of the horse, and for making all such knowledge his study?

In fine, all at this moment appears obscured or bewildered, by the ill-placed confidence of the owners of cattle upon the blacksmith of the parish; upon illiterate and conceited grooms, stupid and listless shepherds; or upon a set of men infinitely more dangerous than all the rest, who, arrogating to themselves the style of doctors, ride about from town to town, and from village to village, distributing their nostrums, compounded of the refuse and vapid scraps of druggists' shops, to the destruction of thousands, whose varied disorders they treat alike, neither consult-

ing nature or art for the cause or the effect. Miserable animal! bereft of speech, thou canst not complain, when to the disease with which thou art afflicted, excruciating torments are super-added by the ignorant efforts of such men, who, at first sight, and without any investigation to lead them to the source of thy disorder, pronounce a hackneyed, common-placed opinion on thy case, and then proceed with all expedition, to open thy veins, lacerate thy flesh, cauterize thy sinews, and drench thy stomach with drugs, adverse in general to the cure they engage to perform.

Opposed to this barbarous and noxious practice, let us turn our eye to that of the veterinary physician and surgeon.

We shall not find him occupying the attention of his auditors with the accounts of miraculous cures he never performed;—or, under the mask of sullen ignorance, endeavouring to attract confidence; we shall not see him armed at all points with phlebotomies, rowelling knives, and cauterizing irons, to rack and torment his suffering patients; or with drenches or balls, to obstruct the efforts of nature.—We shall see him with a cautious eye and tender hand, surveying and examining, with discretion and judgment, into the case before him; and as far as he can attain information from those who bring the animal to him, we shall find him an anxious and patient inquirer; proceeding to explore all the external signs, and to observe with great minuteness every symptom which presents itself; and if he finds them so complicated that he cannot with certainty proceed to give an opinion, he will wait till some new, or more distinct appearances come to his assistance. If, however, these signs should not show themselves, to give effect, he will then apply to the only resource left him, that of compelling nature to develop herself, or, at least, to show some indications. This he accomplishes through the means of medical aid, administered in proper quantities, which, by increasing more or less sensibly, the disease, produces some discovery of its tendency.

Now that witches and ghosts of all kinds are flitting apace off the scenes, it is full time for men to lay aside the expectation of all other uncaused effects. On these topics a celebrated veterinary writer dwells, with peculiar force of illustration, as he says “from a motive of justice, on account of the irrational prejudice of too many persons concerning the Veterinary College.”

“Enjoying a public institution, in the metropolis,” says he, “where veterinary science in all its branches is regularly taught and practised, it remains for those who interest themselves in the safety and well being of our domestic animals, to devise and recommend the most proper and expeditious methods, of a general diffusion of these benefits throughout the country. The farriers of London were advised, by persons of influence, to allow their sons and apprentices to attend the college lectures which are given, and which indeed is practised by several of good repute. Those gentlemen of the medical profession attending the London hospitals, whose destination is for country practice, will surely perceive great probable advantage in the acquisition of veterinary knowledge, even if they have no present intention to profess that branch of medicine. Business, as is sometimes the case, with young practitioners, may run short at the outset, and the leisure time might be both honourably and profitably employed in veterinary practice. Such meritorious and humane occupation, could not possibly injure the medical character of a medical gentleman in these enlightened times; on the contrary, it would be more probable to procure him connections of the most valuable sort—and might be his passport and introduction to the families of medical men.”

Thus far we have stated the opinions of a writer truly ingenious, and most deservedly popular. Just, however, as are the encomiums of this useful institution at an early period of its existence, yet we are bound more especially to acknowledge the extraordinary progress which this institution afterwards made (and is now making) under its present enlightened and truly ingenious professor Mr. Coleman. This gentleman, to a natural taste for these investigations, united a profound knowledge of his profession, as an anatomist and surgeon—a foundation on which the Veterinary Science could not but be erected with singular advantage. That this has actually been the case, our readers must be aware that from the report of 1814, published in London, brought over by Mr. Carver, that not less than 600 students have passed at this institution, who are now attached to the different regiments of British cavalry, and also practising in various parts of the united kingdoms; besides the different articles in which Mr. Coleman's name and writings have necessarily been brought forward; for which reason we close the present article without entering on those particulars, which it would otherwise have been our indispensable duty to have stated.

THE CHARACTER OF A VETERINARY SURGEON,

In a limited sense, is one who practises the operative part of the Veterinary Art, and whose views do not extend to the treatment of constitutional maladies in brute animals.

The veterinary practitioners in general are named Veterinary Surgeons—and this designation also attaches to those who engage in all the branches of the profession, as they are required in the different regiments of cavalry. We shall devote this article particularly to the consideration of those qualifications which every man engaged in it ought to possess, in an equal degree with those whose conduct and operation are exercised on the human body.

There is undoubtedly no profession in which greater natural qualifications are required than our own. The more liberal nature has been in her gifts, the more carefully the first impressions have been cultivated by rational education—by so much the better will a man be fitted for the practice of it. *Youth, firmness, dexterity, acute sensation, sound judgment and humanity*, are the qualifications which may be considered as necessary for a surgeon, whether his patient be a *man* or a *quadruped*.

1st, We will begin by observing—that in youth strong impressions are made on the mind, and that he who begins to study on the brute as well as the human subject, from the earliest period of life, will be most likely to acquire reputation.

2d, Firmness is the second qualification of a Veterinary Surgeon, and is indeed extended to the mind as well as the body. It implies resolution to go through his operations, however hazardous or severe, undisturbed by any accidental circumstances—unmoved or unawed by the presence of spectators. It also implies presence of mind to determine how to act under all circumstances.

Dexterity, in using his instruments, is also a necessary qualification in a Veterinary Surgeon. It enables him to finish an operation with all convenient despatch, and with the least pain to the patient, whether brute or human.

Acute sensation is extremely necessary also for a Veterinary

Surgeon; for how often do instances occur in the acute diseases of the horse, where the nicest delicacy of the touch is necessary to distinguish the true state of the pulse.

Sound judgment is, on many accounts, of the utmost importance to the Veterinarian. It enables him to form judicious prognostics, by which he may calculate the chances for or against the event of any operation proposed. It is often not less useful in deciding for the patient's possible advantage, than in preserving his own reputation, and keeping up the credit of his art.

It also teaches him to determine with precision the time necessary for performing an operation, leads him to the choice of the best methods of executing it, or perhaps furnishes him with the *more laudable and happy contrivance* of recovery of his patient by more gentle means.

Humanity is the last qualification mentioned as necessary for a Veterinary Surgeon; and though last, not the least important and laudable.

This indeed is the cardinal qualification of all; it reflects a lustre on the rest, and completes the true character of the man, as well as of the surgeon. The exercise of it is required in two ways; first, humanity in operation, and secondly, tenderness in our subsequent treatment. Humanity in operating, should induce us to put an end to our patient's sufferings, (whether brute or human,) as soon as we can, and also to perform this severe though necessary task after such a manner as shall be attended with the least possible degree of pain, besides the pleasing satisfaction resulting to ourselves, of having done our duty when actuated by such motives.

Tenderness in our behaviour for the *brute creation*, needs not an argument to enforce its necessity—it being no less honourable to feel for them than ourselves; and surely the distresses of brute creatures, and the pain we are often obliged to inflict upon them, is sufficient to soften the hardest heart, and to raise the emotions of compassion within us towards those *mute sufferers* who have toiled in our fields, and lent the labouring hand to help build our *cities* and our churches.

When dressings are either removed or applied, it should be done with a gentle hand, and in a manner which would convince the bystander that it is not the veterinary surgeon's intention to give pain, even to the most inferior animal, if he can avoid it; while a contrary conduct to this may ever prove an obstacle to

his success in life; for cruelty will increase by habit, and at length render his manners coarse and offensive, even to those on whose liberality the emoluments of his future practice may in a great measure depend.

We shall now come to consider the *acquired knowledge* necessary to make a good veterinary surgeon. On this point we shall make one general observation—to wit, that the more extensive and universal a man's knowledge may be, from having made these his pursuits and acquirements in various quarters of the globe, (and which the writer has had every opportunity of obtaining from early life,) the better fitted will he be for the exercise of his profession. But, not to alarm young persons by considering the subject too extensively, or by a vain display of science, it is necessary here to mention that knowledge which is absolutely necessary they should acquire. If they are as conversant as they ought to be, in the matter proposed to their industry and application in this work, the knowledge they will then have obtained cannot but raise a spirit of inquiry in their minds, which will lead to more important exertions.

The next and most important acquisition is a knowledge of the *power and properties of Medicines*. The various substances of the *materia medica*—the different classes of the *vegetable*, *mineral* and *animal* kingdoms, so far as they relate to physic, supply all the several applications used in *Veterinary Surgery*. If therefore we are ignorant of the qualities of these substances, we may commit the greatest mistakes in the use of them. Instead of an emollient we may apply an escharotic, and instead of a stimulating application, we may perhaps prescribe a sedative.

Without this knowledge it is impossible to practise our profession with any degree of credit or success; though by some it may possibly be argued that we should have learned these things equally from experience. Nothing therefore can be more necessary than a knowledge of the *Materia Medica*, and consequently of *Veterinary Pharmacy*—which is nothing more than a knowledge of the art of mixing and compounding the several articles of the *Veterinary Materia Medica*, so as to produce a combination capable of effecting what cannot be done by any solid or fluid substance *singly*.

The last point to be insisted on, as demanding our particular attention, is the study of Anatomy. The body of the *Horse*, the

Cow, the *Sheep*, and the *Dog*, being the subject of our operations, how shall we be able to perform them properly, if we are ignorant of the construction of the machine on which we are to work.

A complete and thorough knowledge of Comparative Anatomy is therefore absolutely necessary to acquire; and the method to be pursued in order to acquire this knowledge, must be the work of our own hands, in the *dissecting rooms* of those institutions established for that purpose, in different parts of Europe. Mere oral instruction is not sufficient; we may attend the most ingenious and instructive lectures in anatomy of the *human subject*, without being fitted for the exercise of our profession. It is therefore necessary to dissect, to trace, and inspect, the several parts of animals with our own *hands* and *eyes*; and this with care and industry.

NOTE. Dr. Carver having experienced much loss of time, as well as inconvenience, in getting the feet of several subscriber's horses in order, owing either to the contradictory orders of the owner, or through the chicanery or artifice of the grooms and coachmen, who being bigoted in their own absurd notions, are constantly directing and ordering different kinds of shoes, and the mode of applying them, in direct contradiction to all principle, begs to inform them, that until this branch of the Veterinary Art is more generally studied, and better known and understood by gentlemen than it appears *to be by many*, that no such orders can be complied with. Dr. Carver at the same time informs them, that he will cheerfully listen, and pay every attention to the opinion and wishes of every gentleman, to make any alteration that can, consistent with principle, be complied with; and which can always be done, either by a note, or by coming themselves to the forge counting house; but that no orders of a peremptory nature from servants can be attended to.

He has seen and witnessed more systems of shoeing in all parts of the world, than perhaps any other man of his age, in this, or any other country—and to bring feet into a state of health, that has once suffered from disease, is not only a very difficult task, but requires different means, by which it is to be effected; and as those means are best known to the judgment and practical experience of a professional man, proper confidence must be placed in his abilities, in order to enable him to effect it. It is therefore hoped that gentlemen seeing their own interests concerned in this useful and laudable undertaking, will not be offended at this friendly notice.

On the first establishment of the Veterinary College in England, many evils of this kind soon crept in, which had nearly proved fatal to the establishment; but the *humanity* of the cause, by which thousands of useful animals, which had been, and was still likely to be saved, prompted several of the *faculty*, as well as hundreds of the first characters, to step forward in its defence and preservation; and not only in this way has a great national benefit has resulted to the community, but to the brute creation at large.

Veterinary College, 12th July, 1815.

These are to certify that Mr. J. Carver has attended the Veterinary College as a resident pupil for three years, and having been examined by us, we consider him as qualified to practise the Veterinary Art.

HENRY CLINE, Surgeon,
WILLIAM BABINGTON, M. D.
ASHLEY COOPER,
J. COOK, M. D.
G. PEARSON,

HENRY CLUI, jun.
EDWARD COLEMAN, Prof.
WILLIAM SEWELL,
Assistant Prof. and Treas.

Theatre of Anatomy, Physiology, Pathology and Surgery, October, 1815.

By Mr. Wilson, Mr. Charles Bell, and Mr. Brody.

This is to certify that Mr. J. Carver, veterinary pupil under me, has attended a course of lectures on the human subject, and chemistry under Sir H. Davy, jun.

EDWARD COLEMAN, President,
WILLIAM SEWELL, Assist. Prof.

Royal Veterinary Medical Society, July 12, 1815.

We hereby certify that Mr. J. Carver is a member of the London Veterinary Medical Society, and that his observations have contributed to the advancement of veterinary knowledge.

Signed by order of the Society.

EDWARD COLEMAN,
WILLIAM SEWELL, V. P.

S. DUFFIELD, Secretary.

To Mr. J. Carver, V. S.

The above veterinary diplomas have been examined and approved by the President, Vice-President, Secretary and Members of the Philadelphia Agricultural Society.

R. VAUX, Secretary.

Understanding that several malicious and ungrounded reports having been in circulation, respecting Dr. Carver, Veterinary Surgeon, having killed a mare of mine, which he never attended, I deem it my duty as a fellow citizen and patron of Veterinary Science, to contradict any such evil report as may have a tendency to injure the professional talents of a man, whose services I not only estimate, but shall avail myself of, as occasion may require.


JOHN TOMLINSON.

Philada., 5th mo. 16th, 1817.

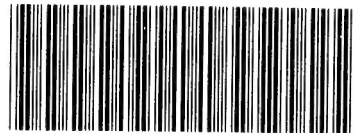
Having attended at the request of the parties an investigation of the circumstances which led to the death of Mr. Chancellor's horses, we do certify, that nothing came to our knowledge which ought to affect any estimate which might previously have been entertained of the skill and abilities of Mr. Carver as a practitioner of Veterinary Medicine.

N. CHAPMAN, Professor of Anatomy and M. M.

THOS. T. HEWSON, Prof. of Comparative Anatomy.

 *The Students of the University of Pennsylvania are respectfully invited in the ensuing winter to attend a course of Lectures on the foot of the living Horse, and the various diseases attendant on Quadrupeds in general.*

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